

From the THE *Author*

INTRODUCTORY LECTURE,

DELIVERED AT



GUY'S HOSPITAL,

ON OCTOBER 1st. 1869.

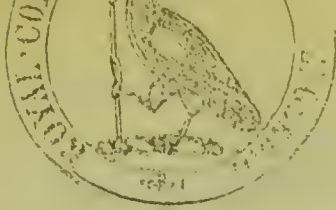
BY

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*1869*  
GEO. P. BACON, LEWES.





# THE INTRODUCTORY LECTURE,

Delivered at Guy's Hospital on Oct. 1st, 1869.

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MR. TREASURER AND GENTLEMEN,—

When I was invited to address you to-day, I did not consider that my comparative youth would be an excuse to me for shrinking from the burden imposed upon me. Around me, indeed, I see my seniors, to whom I would far more willingly have listened, and whose riper experience and fuller eloquence would have stamped deep into the minds of their hearers those lessons which we are all alike anxious to convey, and which I must do my feeble utmost to impress. But to this there is another side. So few years have elapsed since I was myself a pupil, that I must needs well remember what are a student's feelings and thoughts, and retain a ready sympathy with him in his difficulties, and in his struggles with the temptations that beset his path.

Nor, again, did I feel it my duty to decline on the score that I had no new things to tell you. An introductory lecture can seldom, I think, be very new. Even an Oration, Harveian or Hunterian—repeated every year or two—is found to tax somewhat the inventive faculties of the Orator. And how much more these lectures,—multiplied by being delivered

annually at each of a dozen medical schools in London alone. However, I regard it as my present business not to startle you by novelty or paradox, but rather to tell to a section—and that the youngest section—of my audience a few truths, which, common-place truisms as some of them may seem, are, nevertheless, all-important to the student of medicine, and upon which it particularly behoves him to ponder when, as now, he is entering upon a new year of work, or is even standing on the threshold of an opening career. I shall, then, take leave to address myself to the students mainly, and, above all, to those who attend here for the first time.

But, even in these preliminary remarks, I am postponing that which ought to be the foremost topic of my discourse—the warm and hearty welcome which I am privileged to offer to you all, in the name of the authorities and the staff of Guy's Hospital. Believe me that this welcome is no mere formality. From to-day you are Guy's men; and we of Guy's pride ourselves on the strong *esprit de corps* which binds us all together.

Coming to this great overgrown city, perhaps for the first time, your home-ties suddenly severed, most of you are probably conscious of a void which you are anxious to fill. The next few days will be to each of you in the strictest sense *critical*. At the opening Lecture on Chemistry, when you, first year's men, will be almost alone, you will be an aggregation of unconnected units, a fortuitous concourse of atoms! A fortnight later you will be a very different body. Almost every one of you will have made some acquaintances; you may even have found *friends*. The character of these will, perhaps,—nay, probably,—affect your whole hospital careers, and even the course of your future lives. Many a man has been ruined by a thoughtless intimacy, contracted during the first

few hours of his attendance at a medical school; many another, looking back on a student-friendship, will be ready to confess that the honours he may subsequently have achieved, and the skill and knowledge he may have acquired, are all in great part due to his friend's influence, whether by the contagion of sympathy or the stimulus of competition. I cannot too strongly urge you to be slow, and careful, in entering upon any associations during the early part of your studies.

Indeed, each year a certain general character may be easily recognised to belong to the students as a body;—a sort of *epidemic constitution*, which, although the resultant of individual characters, reacts incessantly on the individuals themselves, and thus exerts a very powerful influence for good or for evil. The most casual observer will one year see that the students are a very quiet, gentlemanly set of men; another year his verdict may be different. The fortuitous concourse quickly develops into an organised community.

Students, I think, are not sufficiently alive to the fact that from their general demeanour and conduct, their teachers, and the authorities of the Hospital, are constantly estimating both their intellectual powers and their moral dispositions. Dwell for a moment on the consideration that you yourselves cannot but form opinions as to the character and tendencies of all those with whom you are thrown into contact, even for the shortest possible period. Who among you hesitates to say whether an acquaintance, or even a person whom he knows only by sight, is likely to commit a particular action, or to carry out a particular line of conduct? Such judgments will necessarily be formed many times every day concerning each one of you, as you walk into the hospital, as you face the different Lecturers in this theatre, as you work in the dissecting-

room, or in the wards. I do not mean to say that the conclusions so arrived at are final; on the contrary, they are incessantly being added to and modified. All I say is, that each of you is subject to them. You cannot evade them; by no words of yours, or outward actions, can you of set purpose alter them. It is only by leading a blameless life—*sans peur et sans reproche*—that you can, if you will, render these judgments favourable to you, and gain our respect and regard.

But, beside these unwritten documents, an actual record is kept of the work you undertake and perform. The Demonstrators report to the Medical Council the number of parts dissected by each student, and how he has discharged his duties. The attendances on lectures are noted down and registered. At the termination of each Ward Clerkship and Dressership, returns are made to the Council of the manner in which the work of these various offices has been performed. It is by the light of such reports that the Council are guided in selecting among the different candidates those most fit to be recommended to the Treasurer for the higher appointments. I would especially impress on you the importance of securing favourable reports from the first, by diligence and industry during the first year. Not only will you thus obtain a start in the race, and gain the junior offices at an early period; but you will acquire a cumulative energy that will avail you greatly hereafter. Many a man has failed in a competition for a Dressership in his fourth or fifth year, from no cause, except his having been idle in his first winter session.

The Clinical Appointments are, in some degree, peculiar to Guy's. So far as I am aware, there is no other medical school in which every part of the hospital practice, whether in-patient or out-patient, whether during session or in vaca-

tion time, whether in general medicine and surgery, or in the so-called specialties of eye-diseases, ear-diseases, skin-diseases, diseases of women, is in the same systematic way served by dressers or clerks, and made available for their instruction. And there are not many London Hospitals where the facilities for this kind of work are so extensive. Even within the last five years great advances have been made in the regularity and completeness of our arrangements in this respect. Of the point to which they are now carried, you may form some idea from the fact that, including the House-Physiciancy and House-Surgeoncy, there are eighteen appointments,\* having a total duration of at least 53 months. Supposing the student to hold all these offices in succession, beginning at the end of his first winter, and going on without a week's holiday, and without a single break, I find that he will not have completed them by the end of his fifth winter session.

I have purposely introduced this matter at the commencement of my address, because I wish you to understand that, beside distinction at the University of London, and hospital prizes, which can fall to the lot of few among you, your obtaining the higher clinical appointments is the great test of the success of your career here. They are all given, without payment, to the best men among the candidates, so far as can be determined. Some of you may, perhaps, think *now* that

\* I append below the designations by which the holders of these various appointments are known, and the terms of their several offices.

	months.		months.
House Physician	6	Dental Surgeon's Dresser	2
House Surgeon	4	Aural Surgeon's Dresser	2
Resident Obstetric Clerk	2	Medical Ward Clerk	3
Surgeon's Dresser	6	Postmortem Clerk	2
Clinical Clerk	3	Surgical Ward Clerk	3
Dresser in the Eye Wards	4	Extern Obstetric Attendant	1
Assistant Physician's Clerk	3	Obstetric Out-patients' Clerk	3
Assistant Surgeon's Dresser	3	Assistant Surgeon's Clerk	3
Dresser in the Surgery	3	Clerk in the Electrifying Room	

you would not greatly care to have a House-Surgeoncy or House-Physiciancy. If so, take my word for it, that hereafter you will be of a different opinion.

Nor do the offices I have named complete the career open to you. Our staff has for many years been recruited almost entirely from our school. Hardly one of those who will be your teachers, but at one period sat on those very benches as a student. A position like theirs is within the reach of each one of you, who can show that he possesses the needful qualifications. You may have heard it said that in the armies of the Great Napoleon every soldier carried a marshal's *bâton* in his knapsack, so open lay the path to fame and honour for every one deserving of them. I would fain hope that something not altogether different might, without falsity, be said of Guy's.

Let me now make a few observations as to the general course of study, which ought to be adopted by those who would learn medicine. And you will not, I hope, misunderstand me, if I accuse some of you of being too much like schoolboys, and too little students in the right sense. I do not mean that you are too light-hearted, or even (which is possible) too fond of amusement, or lacking in due gravity and reserve: I am thinking of certain habits of study, which belong to schools, and which therefore your past associations are likely to suggest to you, but which I would have you most carefully to guard against and avoid. The lessons learnt by the schoolboy seem often to be set for no other purpose than that he may learn to learn. He naturally acquires the notion that knowledge is intended not to be permanently stored in the memory, but simply to be piled up in the outer chambers of the brain, so as to be voided with facility and promptitude, when the



“lesson” has to be “repeated,” or when the half-yearly examination affords a welcome occasion for disburdening the mind of its load.

A similar feeling is common in students, and betrays itself readily to those who will observe the symptoms of it. It alone will explain what has often been a puzzle to me, and is in fact an absurdity, that after an examination a man will express disappointment, and even disgust, because the Examiners did not happen to ask a particular question. “He got up (perhaps) the internal ear, and all for nothing; he never had a single question in it.” Instead of seeking knowledge for its own sake, he has been striving to learn just those points which he supposed likely to be asked. He has forgotten that examinations are intended, not to elicit all that the student knows, but to take (as it were) *samples* of his information by questions scattered over its range.

Further, the traditions of his general education are apt to have left in the student’s mind an undue belief in the value of *books* as instruments of learning. To the schoolboy reading and study are nearly convertible terms; his knowledge is derived almost wholly from books; their statements are not to be questioned by him; their authority is final. But to the medical student books are only one, and not the best, source of knowledge.

This matter is one of such vital importance to each of you—a forgetfulness of it may lead to such disastrous consequences—that I think I may well devote to its consideration a portion of the brief space of time allotted to me. We will ask, therefore,—*what are the methods by which a knowledge of medicine and surgery may be obtained?*

Now the first answer to this is that *observation* and *experience* are the foundation of all real knowledge of diagnosis,

and are essential to all successful treatment. To know any one (except perhaps a few of the most obvious) of the diseases to which the human body is liable, and which are recognised by sight, or touch, or hearing, you must previously have seen, or handled, or listened to, other cases more or less similar. Whatever cases you first have to do with will be the raw material for your studies. If you do not get over the period of your probation by examining for yourselves the patients under *our* care in the wards, which are freely open to you for this purpose, you will hereafter have to pick up your experience—at whatever risk, and with whatever difficulty—from those who come to *you* for treatment, and to whom you will be responsible for it.

Now there is enormous difficulty in acquiring by oneself, unaided, a knowledge of the more recondite branches of medicine. Every one of the senses has in turn to be educated and, indeed, sharpened. When a student begins to visit the wards, he will hear statements as to matters of fact, which he will be utterly unable to verify. He will see the Surgeon detect pus by means of fluctuation, and prove the accuracy of his judgment by thrusting a bistoury into the part, when he cannot, with all his efforts, feel anything abnormal. The Obstetric Physician may give him an opportunity of hearing the foetal heart beat through the abdominal walls; but he will for a time be absolutely unable to detect the faintest sound, although he may listen ever so intently. Mr. Bader will tell him that the retina is anæmic or hyperæmic, and will place an ophthalmoscope in his hand; he will look and see nothing but a red patch: at the end of a week or two, if he persevere, he may be able to see, instead of the red patch, a white one with some bloodvessels running over it; but many more weeks will elapse before he will be able to determine

correctly any of the different morbid changes in the eye. Dr. Moxon will show him livers and kidneys and lungs; and for a long time he will not know which of them are healthy, and which diseased. The Physicians will speak to him of systolic, and presystolic, and diastolic murmurs; but when he applies his stethoscope, he may be unable to recognise any murmur at all; it may be absolutely inaudible to him. If the student be of what I may term an argumentative disposition, he will at first be inclined to dispute the facts—not merely the inferences, but the very *facts*—laid down for him by his clinical teachers.

And when you,—for these difficulties will occur to all of you,—have advanced a little,—when your fingers are beginning to feel, your ears to hear, and your eyes to see,—you will be greatly disheartened by the fragmentary and imperfect character of clinical work. Of one disease you will see the earliest stage, with no prospect of tracing it to its end; of another you will be shown the morbid anatomy, and will only be able to regret that you missed seeing the patient alive; a third will come before you in the middle of its course, and you will be acutely conscious of your powerlessness to tell how it began, or to predict its probable termination.

Gradually, however, these difficulties also will diminish, and sooner or later disappear. As your knowledge increases, you will discover that the range of possible changes and terminations in each class of cases is tolerably definite and limited. In course of time you will less and less frequently find yourselves *taken by surprise* in the progress of disease. You will slowly acquire what I may term *a grasp* of your cases. You will still make mistakes;—it has been said that the only man who makes no mistakes is he who has no patients. You will still often be in doubt; the story goes that a great

physician summed up his experience by saying that he was tired of guessing. But notwithstanding your errors, notwithstanding your uncertainties, you will display a power and mastery over your cases, which nothing but clinical study could have given you.

Let me insist on what I have just said. Long, and patient, and repeated clinical study can alone give you such a grasp of your cases, as is absolutely essential to your success and comfort in practice. "How," you may reply, "do not some students leave the Hospital every year who have spent but very little time in the wards, and of whom the most charitable-minded could hardly say that they ever studied clinically at all? Are these men utterly ignorant, and do they remain so all their lives?" Now I have not asserted, and do not mean to assert, that bedside work, to be effective, must necessarily be done at a medical school. There are, I know, men of unusual powers, who, their opportunities of instruction having been small, succeed in making their own patients their intellectual food; who, amid all the distractions of practice, systematically teach themselves; and who ultimately reach the highest rank among clinical observers. Such an achievement, however, is quite exceptional; it can never be hoped for in the case of those who, having had all opportunities and means of education, have deliberately neglected or thrown them away.

But you will probably ask me why I thus dilate on the necessity of clinical work *now*, when I am addressing first year's men, who have a crowd of sciences to learn, which are regarded as preliminaries to the study of medicine and surgery. Do I mean that a student ought to attend in the wards, from the first day of his entering at a medical school? This is a matter concerning which opinions vary widely,

and which is so complicated by a number of considerations, that I can do but scant justice to it on an occasion like the present. It is undeniable that every year some students commit a fatal error by pushing their attendance in the wards and out-patient rooms, so as to neglect their proper work—dissecting, chemistry, physiology. But this does not prevent my thinking that the opposite course is likewise in most cases an error. The question is, in part, one of time and money. Those whom circumstances permit to look forward to continuing their studies at the hospital for some years, those who are preparing for the examinations at the University of London, may all fairly postpone their clinical work, and devote their whole energies to preliminary subjects. But with these exceptions I think that you ought each of you to resolve to do some practical work in the wards or in the out-patient rooms every day or every other day, even in your first and second years.

To carry out such a resolution will undoubtedly cost you an effort of no ordinary kind. To the young student the difficulties on which I have been dilating may seem overwhelming. "Surely," he says, "I might postpone this fragmentary and unsatisfactory work; next year, or two years hence, when I shall have learned my anatomy and physiology, I shall have my mind free, and then I shall be able to devote my whole attention to medicine and surgery, in which now I seem to make no progress at all." This, however, is, I believe, a mistake. Energy and perseverance only are needed. Indeed, while the *power* of concentrating the mind on a single subject is a most valuable one, its *indulgence* creates a dangerous *habit*. The apparent idleness of some half-employed men seems to me to be simply the effect of their never having learned to divide their time among different duties.

One remark more before I leave this subject. It is common for a student to say that in his first two years he has no *time* to attend in the wards. But yet there are cricket clubs, and boat clubs, and football clubs; and for these time is found. I do not ignore the advantages of such amusements, nor the necessity of exercise for the maintenance of health. But can they compare in importance with those studies, by which you must learn the business of your lives?

For be it observed that whether you enter the wards now, or postpone to a future time your clinical studies, your experience at the end of your hospital career will in either case be incomplete;—you will only have begun to learn disease.

“Death hath ten thousand several doors,  
For men to take their exits,”

says one of our older dramatists. And, indeed, the forms and varieties of disease are endless. New ones are being discovered every year, and new interpretations of those already recognised. No physician in the world, however large his experience, could take up and read a volume of the Pathological Society's Transactions, without finding in it records of cases such as he had never witnessed. One of the highest attractions of medical science, indeed, is this—that its subject-matter is inexhaustible; and one of the proudest boasts of its votaries, that all their lives long they are advancing in knowledge and in power.

I must not fail to insist upon the value to you of some other studies, besides medicine and surgery. Among the most important of these are anatomy in the dissecting-room, and morbid anatomy in the postmortem room; and it may be said of them, even more than of clinical work, that you will not in all your lives have any opportunity of gaining a real knowledge of them, except at the hospital. It is, indeed,

barely possible that you might spend too much time in tracing out minute filaments of nerves and twigs of arteries in the dissecting-room ; but to morbid anatomy I should say that it is impossible for you to devote too much attention. In the postmortem room, even more than in the wards, something new presents itself every day.

While I am upon this subject, let me urge on you to lose no time, today or tomorrow, in putting your names down on the list for dissecting, if you have not already done so. The arrangements in our dissecting-room secure to each student in rotation his due turn, but only on the condition that he takes pains to avail himself of it. And this year it will be especially needful for all of you to do so, if there should be the same dearth of subjects at the medical schools as during last winter. I may give you a measure of the famine which then prevailed in the fact that at least one first year's man actually did not, until after the end of March, obtain his first part, for which he had put down his name early in October.

It is not easy, in an address like the present, to avoid saying something on the question whether or no existing regulations lay too much stress on lectures as a means of acquiring medical knowledge. It is true that for each and all of you the question is barren ; the regulations will not be altered in your time, and you must conform to them. The controversy is, indeed, an old one. Dr. Johnson, a century ago, defined very fairly the limits within which lectures are of most value :—“ People have now-a-days,” he says, “ got a strange opinion, that everything should be taught by lectures. Now I cannot see that lectures can do so much good as reading the books from which the lectures are taken. I know nothing that can be best taught by lectures, except where experiments are to be

shown. You may teach chemistry by lectures; you might teach making of shoes by lectures.”

I believe, however, that it would be well, if it were possible, to make great allowances for the idiosyncrasies of the student in this matter. There are some to whom reading is hateful, and who easily remember what they hear; there are others—of whom I confess I was one—who find great difficulty in learning from lectures, and who derive far more benefit from books.

Within the last few years the growth of medical literature has undoubtedly modified the relative value of these two sources of knowledge. Formerly a great physician's or surgeon's experience was, and remained, personal to him. He might even think it against his interest to have his opinions made generally known. Thus in the year 1824, when Mr. Abernethy's Lectures on Surgery, delivered at St. Bartholomew's Hospital, were published by the *Lancet*, that journal actually had to defend its privileges in the Court of Chancery, an Injunction having been moved to restrain the publication. At the present day such an occurrence as this is almost inconceivable. If a man thinks he has found out any new thing, his first idea now is to print his discovery. Thus he at once gives the benefit of it to anyone who will read what he writes. It necessarily follows that our systematic works on medicine and surgery are much nearer the level of the best practical knowledge of the day than was the case forty years ago.

I have already insisted on the fact that in studying the medical art books cannot take the place of practical work; whether in the dissecting-room, the chemical laboratory, the postmortem room, or the wards. To take an illustration from my own department: a book may tell you the causes



and the signification of bronchial breathing, but it can do very little towards enabling you to recognise the sound. Books are good servants, but very bad masters.

We may, indeed, take a step still further in the same direction. Many men of judgment and authority in this matter believe that there is a certain antagonism between the power of memory for information obtained from books, and the faculty of quick and accurate perception of things brought before the senses. Whether it is so or not I am not sure; it would not be very easy of proof. But this I do know, that it will be well for any of you who are conscious of possessing what I may call the "book-worm" spirit, to act as if you *knew* that there *is* such an antagonism. You have always loved books, and feel that it requires an effort to leave them, and to throw yourself with zeal into clinical work, imperfect and piece-meal as I have described it to be. *Make the effort*. The fact that you feel it to be one is the best proof that you need the discipline.

There is another kind of reading—if it can be called *reading*—that I fear nearly everyone at the present day requires to be warned against—the habit of letting the eyes travel over page after page of printed matter, often with but the faintest attempt to think of what one is reading. A man is now so afraid of being left alone with his own thoughts, that he cannot travel three or four miles in the afternoon, without first buying an "evening paper." Somebody lately has entered a protest against leading articles, on the ground that they prevent people forming opinions of their own, by providing them with notions ready made; but it is a significant fact that one or two new evening gazettes appear to be daily increasing in popularity, in which the news is quite subordinate to articles on all kind of topics.

Bishop Butler long ago censured this habit of desultory reading, by which, he says, "time, even in solitude, is happily got rid of without the pain of attention," so that no "part of it is spent with less thought than great part of that which is spent in reading." It would be very well for a man to lay down for himself the rule that he would never read anything without deliberately weighing the arguments employed, and taking the pains to form a judgment of his own as to the validity of the conclusions arrived at. In some people, indeed, this habit of flying to books at every vacant interval of time almost amounts to a monomania. It did so in a friend of mine, and was the subject of frequent remarks by his associates. On one occasion a comrade, leaving him for a few minutes in a billiard room, laughingly made the remark that he would be miserable, having nothing to read. On returning he found my studious friend intently reading the inscription on the back of a box of matches which lay on the mantelpiece.

But to return to the subject of medical study. You see that in beginning to learn the healing art your ideas as to study must to some extent be modified, and the very instincts you have acquired must be changed. The successful Medical Practitioner must be *many-sided*. If one finds a student spending all his nights in reading at home, and all his days in the museum or the library here, generally carrying three or four books under his arm, one is sure that such a man, though he may gain prizes, is not really qualifying himself to practise his profession hereafter to the benefit of the sick or to his own credit. But stay, let me be fair: if you see another man who will not read at all, whose main object appears to be to get cases of midwifery, and who will stay for any number of hours in the porter's lodge or the injecting-room to pick up a stray

card,—who prides himself on being a *practical* man, and will not learn to use a microscope or, hardly, a stethoscope,—he, you may be sure, will gain neither honour nor even reputation in his future calling. Nemesis, indeed, is much nearer to him than to the other. To him the easiest examination is a terrible ordeal; and the examiners are wrathful deities, requiring to be propitiated by the sacrifice of long and weary hours in the transcribing of certain “notes,” and the protracted sharpening of such faculties as he may possess on the patient *grinder’s* stone.

What I would have you remember is that in the practice of your profession all your powers will be called into play. Do not then suppose me to have meant that mere memory will not be very valuable to you. On the contrary, it would be difficult to exaggerate the importance to you of a good memory. I dare say that to the younger members of my audience it will appear a very slight thing to remember the facts of the cases that come before one in practice,—I do not mean to bring back their minute details, but to recal their broad features, the opinions one formed about them at the time, one’s reasons for those opinions, and any points disagreeing with one’s previous experience. And yet I suppose that every medical man who aims at self-cultivation would say that he meets with no greater obstacle than the difficulty of retaining in his memory even the barest outlines of those cases which, when they occurred, were most interesting to him. It is not so with the student. He remembers well enough in what ward, and in what bed, a particular patient lay, and perhaps the most insignificant points in his case. Some of those present to day, who are now bringing their sons to their old Alma Mater, were in past years Dressers and Clinical Clerks in this very Hospital. They have, perhaps, rarely visited Guy’s

since they left her twenty or thirty years ago ; and as they to-day re-entered her wards, many recollections have crowded upon them. In yonder bed lay the poor fellow on whom Mr. Aston Key performed that great operation, which men from every other hospital came to see! That was the ward to which Dr. Addison came down at three in the morning, waking up the sister, and every one else, because he had been possessed by the fear that he might have overlooked a hernia, in diagnosing a case as one of internal strangulation! Memories such as these, vivid as of yesterday, fill the thoughts of our fathers when they return to Guy's. But some of their cases of last year, or the year before, they would find it very difficult to recal.

There are probably many among my hearers who would wish to ask,—now at the commencement of their studies,—whether it would be well for them to aim at the degrees of the University of London. This however, is a matter on which it is difficult to advise,—on which, indeed, no general advice can be given. One limit I, for my own part, would, however unwillingly, make absolute. If your education has from any cause been defective, so that matriculation would offer you serious obstacles,—if for instance you were at all embarrassed by your ordinary preliminary examination,—then I have no hesitation in urging you either not to attempt the University curriculum, or to postpone your attendance at a medical school until after you have matriculated. No man, I think, can attend to his medical studies while he is working for the Matriculation Examination; and I therefore strongly disapprove of a suggestion which has been made, that we should hold classes for this examination at Guy's.

But if your general education have been good—if you have

time—and if you have energy and ambition, the University of London is the place for you. It is true that the curriculum is long and arduous. After matriculation nearly four years must elapse, and three examinations must be passed, before the bachelor's degree can be obtained. Those, therefore, whose means are limited, and whose time for study is necessarily short,—those whose noble ambition is held in restraint by a yet nobler spirit of self-abnegation for the sake of others,—ought all, I think, to ponder long before commencing to work for the University.

Or, again, if any one of you be without ambition, if he wish merely to be enabled to carry on with satisfaction to his patients and credit to himself the long-established practice held by his grandfather once, and his father now, in some rural district, he may well be content with the qualifications of the Colleges and the Hall. It may be some consolation to him to be told that there is no surer way to make the public confer on him the title of Doctor, than to call himself plain Mister, and *vice versâ*. But, indeed, I do not presume to offer him consolation; his choice is one which I am far from deprecating;—he, at least, appears to be contented. He may, I believe, acquire just as sound and thorough a knowledge of his profession without a degree as with it.

I desire particularly to impress on you the consideration that a career at the University of London is not to be taken up and laid down at will, without interference with your other studies. The subjects for the earlier examinations are exclusively scientific, and while you are studying them you will have no time for that clinical work on the importance of which I have laid so much stress. Hence, if by any accident you should be thrown back in your course, and your hospital studies should afterwards be interrupted at the end of three or

four years, it will, in my opinion, be *worse* for you to be University men. Many London undergraduates have, I fear, been thrown upon their own resources, with but a very imperfect knowledge of medicine and surgery.

The moral I would draw from all this is:—Count well the cost, in time and money, before you aim at the degrees of the University of London. During the four years 1864—8, the degree of Bachelor of Medicine was obtained by less than half (just 45 per cent.)\* of those who had succeeded in passing the preliminary scientific examination in the corresponding years. What chance will you have of ultimate success if you are impeded by defective education, by a constitutional want of diligence and energy, or even by circumstances so straightened as to render you only in part masters of your own time?

It ought, in fairness, to be stated, in connexion with the remarks which I have just been making, that, compared with the numbers of students entering at the different London

\* The numbers are:—

Second M. B. Exam.		Prel. Sc. Exam., 3 years earlier.	
Year.	Number of Candidates who passed.	Year.	Number of Candidates who passed.
1864	26	1861	58
1865	23	1862	63
1866	25	1863	56
1867	22	1864	50
1868	21	1865	33
Total	117	Total	260

Hospitals, those who annually pass even the College and the Hall is much smaller than I should have expected. Some facts that I have collected\* show that at least one in every five students who enter at Guy's fails to attain the qualification of the College of Surgeons. The various causes of this falling off—death, illness, pecuniary difficulties, dislike of professional work—I have had no opportunities of ascertaining;† but it certainly is never due solely to difficulty in passing the examinations, for the licensing boards notoriously exclude no man, who perseveres in the attempt to obtain their diplomas.

A point to which your attention ought to be directed before deciding against the University of London is this—that it is now the only source from which a man who has studied in London alone can obtain the M.D. or M.B. degree in Great Britain. A few years ago, medical degrees could be procured at more than one Scotch University, by simply passing an examination: but these Universities all now require a year's residence. I have long been surprised that the "Hospital Schools" of London—as these Scotch Universities choose to call institutions like ours—have made no combined effort to remedy a state of affairs which is undoubtedly prejudicial to their interests: namely, that the only University from

\* These numbers were obtained by a simple comparison of the entry books at the Hospital, during a term of years, with the pass lists of the College.

† Since this lecture was delivered, Mr. Paget has published, in the St. Bartholomew's Hospital Reports (Vol. v., p. 238), a short article, entitled, "What becomes of Medical Students?" The facts in this paper are not strictly comparable with mine; but it would appear that among the 1,000 students whose careers were traced by Mr. Paget at least one in ten failed to become qualified. Of these 41 died during pupilage, 15 never succeeded in passing, 16 were expelled, or removed by their friends, 1 retired on private means, 3 became actors, 6 entered the army (3 of them as privates), 1 was admitted to the bar, 10 took to mercantile life, and 3 to farming. The lists, however, from which these facts were taken were themselves not complete; and many of those whose names were included in the lists had been lost sight of, and were therefore omitted from Mr. Paget's calculation. It is evident that among those omitted there would be a *preponderance* of students who, being irregular in their attendance, were but little known to the Lecturers and Demonstrators, and who would be likely in the end to give up the profession.

whicli their students can obtain the title of Doector is one of whicli the eurriculum is, to a great extent, prohibitive, as is shown by the fact that only about ten men\* annually take the degree of Doector of Medicine in it, from all the schools in this metropolis together.

I have myself the highest respect for, and take the warmest interest in, the University of London, whicli, in comparison with the lieensing bodies, has done a vast deal to elevate the medical profession, and to improve medical education. But I greatly regret that it cannot open its portals more widely, instead of limiting its benefits to the almost insignificant *number* of students who now have full advantage of them.

It has lately been a question much discussed, whether it would not be possible for the lieensing bodies to make examinations the sum and substance, as well as the end and aim, of their requirements.

Mr. Simon has boldly maintained that this ought to be done—that, to use his words, “the State, in lieensing a man to praetice medicine, besides insisting on a certain standard of age, need only trouble itself with asking whether he is competent, according to a certain standard of competency, and that a perfect examining board would at once be able to settle this question, without referenee to any other considerations whatsoever.”

Now theoretically this may be true enough. A *perfect* examining board might perhaps effect all this, separating the chaff

\* The numbers for ten years are :—

1859	-	-	-	11	1864	-	-	-	7
1860	-	-	-	9	1865	-	-	-	15
1861	-	-	-	16	1866	-	-	-	11
1862	-	-	-	6	1867	-	-	-	16
1863	-	-	-	7	1868	-	-	-	7
Total				-	-	-	-	-	105



from the wheat as unerringly as a steam winnowing machine. But from this point of view I venture to assert that no existing examining board can lay claim to any but the most distant approach to perfection. Regarded as tests whether a man possesses the practical knowledge and skill required to justify him in undertaking the care of the sick, even the examinations of the University of London are, I believe, by themselves, altogether inadequate. To make a good practitioner, it is needed, not that a man should know the symptoms, course, diagnosis, and treatment of disease in the abstract, and as laid down in books; but that he should be able to discover what is the matter with his patients, and possess the practical skill required to bring them safely out of their maladies. This, then, is what must be looked to, if the portals of the profession are to be guarded solely by an Examining Board.

But for such a purpose it will, I think, be admitted that examination papers are quite ineffective. Every teacher knows of instances in which men, although devoid of all real knowledge of a subject, have nevertheless written excellent papers on it. In chemistry, almost every student is more or less in this position. What candidate, when examined in forensic medicine, cannot describe accurately the processes by which alkaloids are detected in the contents of the stomach? Yet we should feel great doubts about the adequacy of the investigation in a case of suspected poisoning by strychnia or opium, if the analysis were made even by the most highly educated medical practitioner, unless he should be in the habit of performing chemical manipulations.

The case I have supposed appears to me to indicate the weak point in the position of those who would grant a licence to practise medicine to all who should succeed in passing

certain examinations. For although every medical man ought to know the principles of chemistry, it is not necessary that he should be practically acquainted with the more delicate chemical processes.

Mr. Simon, however, and the few thinkers whose views coincide with his, would probably be quite ready to concede that it would be impossible to test a man's real knowledge of medicine and surgery by papers alone. They would rely mainly on those clinical examinations, which, first instituted by the University of London, have been adopted by the College of Physicians, and will no doubt sooner or later be imposed on all candidates for the professional licence. It is usual to extol these examinations very highly, and no doubt their introduction was a step in advance. But in my opinion they would require to be carried much further than has yet been attempted,—and further than would I believe be practicable,—before they could be accepted as conclusive evidence of a man's fitness to practise his profession. For what is the system? Ten, or twenty, or thirty men are taken together to one of the large hospitals. Each of them is then set down before a patient, and is told to examine the case thoroughly, and to write down the results at which he may arrive. The examiners are often unconnected with the particular hospital in which the examination is held, and at any rate they have personal charge of only a fraction of the patients made use of. It is, therefore, impossible that they should have an exact and detailed knowledge of the physical signs and of the other symptoms in each case. And be it observed that the question is not merely whether a candidate can give a name to the disease, but whether he can *observe* with accuracy and precision. A late examiner in the University is reported to have said that in the best commentary on

a medical case he had ever read the diagnosis was utterly wrong. The merit lay, I suppose, in the skill with which the candidate reasoned on wrong premises. Now I maintain that the object of a clinical examination should be to show that the candidate can supply himself with true premises for his argument by his own investigation of a case.

But, Gentlemen, the time allotted to me has very nearly expired; the curtain will in a few minutes fall, and I must make my bow and retire, thanking you for the attention you have vouchsafed to my discourse. There are still many subjects on which I would fain have touched, and foremost among them the present position and prospects of the medical art, and its relations to physical science. My own state of feeling in regard to practical medicine is one equally far removed from disbelief in the efficacy of treatment on the one hand, and, on the other hand, from expectation of a millennium in which practice, instead of depending on empirical observation, shall be finally settled on a sound basis of theory and experiment. To a great extent I agree with Sir W. Jenner, who in a recent address expressed the opinion that within the last few years much progress has been made, even in therapeutics. Our knowledge that the tendency of acute disease is to subside spontaneously within no very long period is undoubtedly a positive and real advance of the most important character. This discovery, and the inquiries as to the natural course of chronic disease, have in fact shifted the point of view from which treatment is looked at. Formerly the medical man was content to ask, "Is my patient better than he was a week ago, before he began to take my physic?" Now the question is, "Is he better than he would have been to-day, if he had had no physic?" For the first time in the history

of medicine, drugs and methods of treatment have been submitted to that which is the only real test of their value. And with what result? Broadly speaking, with this—that the more active remedies are still believed to possess most of the powers formerly ascribed to them, although advances in pathology and diagnosis have, in some instances, narrowed the range of their use. I quite admit that the applications of the test which I have indicated have in part been crude, and deficient in rigid scientific exactitude. But I think that they have already been enough to warrant a firm belief in the efficacy of remedies.

There still remain, no doubt, a large number of maladies which medicine is powerless to cure, and sometimes, even to relieve. As was well urged by the late Sir John Forbes, man must die, and there must therefore be fatal diseases. Even in so-called functional complaints, you will sometimes be baffled in all your efforts. When this occurs, however, the conclusion which I recommend to you—and which I try to fix in my own mind under similar circumstances—is, not that the pain or other disorder is irremovable, but that *one does not know* how to remove it. A very large part of the unsuccessful practice of the present day arises, I believe, from ignorance of the exact uses and doses of medicines, and of the precise methods of employing them.

In the existing state of knowledge, however, the negative or expectant practice, now so common, is the right practice in a certain number of cases. It is for us, and will be for *you*, to limit these year by year, and to prove that treatment can, in one and another disease, effect more than mere waiting. Above all things, the most to be desired is a clear conviction as to what is, and what is not, known in therapeutics. Even worse than negative practice itself are two of its results or

concomitants: the one a spirit of "indifferentism," the feeling that all medicines come to much the same thing, and that one is as good as another—that all diseases, for example, arise from debility, and that therefore tonics are the universal remedy; the other, a state of distrust, a feeling that the power of drugs is open to doubt, and therefore that it is not worth while to make energetic use of them:—

" Our doubts are traitors,  
And make us lose the good we oft might win  
By fearing to attempt."

Have you yet considered what are the responsibilities of the practitioner of medicine? That to him hundreds and thousands of his fellow creatures entrust their health, and, indirectly, the prosperity of their wives, and children, and relations?

Shall you bleed? Shall you give wine or brandy? Shall you prescribe antimony, or a purge, or a blister? I verily believe that on your answers to these questions—submitted to you perchance when you are worn out with professional cares, or harassed by domestic anxieties—will often depend the life of your patient—his most precious possession. From what pains can you shrink, what labours can you shun, that may give you additional powers of benefiting the sick?

The faithful discharge of your duties, in an earnest, zealous, spirit, can alone enable you to touch the prizes that our profession offers. For us there are no peerages, nor any commanding wealth. And of this we cannot complain, for titles and riches are kept from us, not by any social bar, but by the conditions of our work. The real rewards of the physician are the loving gratitude of his patients, the hearty admiration and sympathy of his friends, and the calm, serene approval of his own conscience.

